# Complete Summary

## GUIDELINE TITLE

American College of Preventive Medicine practice policy statement. Screening for chlamydia trachomatis.

## BIBLIOGRAPHIC SOURCE(S)

Hollblad-Fadiman K, Goldman SM. American College of Preventive Medicine practice policy statement. Screening for Chlamydia trachomatis. Am J Prev Med 2003 Apr;24(3):287-92. [82 references] PubMed

## GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

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## SCOPE

### DISEASE/CONDITION(S)

*Chlamydia trachomatis* infection

### GUIDELINE CATEGORY

Prevention
Screening

### CLINICAL SPECIALTY

Family Practice
Internal Medicine
Obstetrics and Gynecology

Pediatrics
Preventive Medicine

## INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses
Physician Assistants
Physicians
Public Health Departments

## GUIDELINE OBJECTIVE(S)

To present a practice policy statement on screening for *Chlamydia trachomatis*

## TARGET POPULATION

Women and men who are sexually active, particularly females between the ages of 15 and 24 and all pregnant women

## INTERVENTIONS AND PRACTICES CONSIDERED

1. Assessment of risk factors for *Chlamydia trachomatis* infection in all sexually active women
2. Screening for *Chlamydia trachomatis* using cervical or urine specimens by:
    - Culture
    - Immunoassay, such as enzyme immunoassay (EIA) with positive confirmation, rapid office-based immunoassay), or direct immunofluorescent antibody (DFA)
    - Deoxyribonucleic acid (DNA) probe
    - DNA amplification, such as polymerase chain reaction (PCR), ligase chain reaction (LCR), or amplified DNA probe (strand displacement amplification)
    - Ribonucleic acid (RNA) amplification, such as transcription-mediated amplification (TMA)
    - Dipstick, such as leukocyte esterase with "trace cutoff"
3. Screening pregnant women for *Chlamydia*

## MAJOR OUTCOMES CONSIDERED

- Sensitivity and specificity of chlamydia testing methods
- Prevalence of *Chlamydia trachomatis* infections
- Prevalence of pelvic inflammatory disease caused by *Chlamydia trachomatis*
- Rate of preterm contractions, premature rupture of membranes, low birth weight, fetal and infant morbidity and mortality associated with *Chlamydia trachomatis* infections
- Cost-effectiveness of screening procedures

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The guideline developer performed a Medline search and used the reference lists from key articles to collect evidence.

### NUMBER OF SOURCE DOCUMENTS

Not stated

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Subjective Review

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not stated

### METHODS USED TO ANALYZE THE EVIDENCE

Review

### DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

### METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

### RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

### COST ANALYSIS

The cost-effectiveness of screening for *Chlamydia trachomatis* depends on its prevalence in the population being screened. Moreover, it is affected by the cost and accuracy (sensitivity and specificity) of the screening test. Although optimal screening strategies vary in different populations, the economic benefit to society of screening compared to no screening has been demonstrated in several cost-

effectiveness analyses. One study compared culture, nonculture nonamplification, and amplification methods in a large population of women aged <30 years. Screening with any method was cost saving compared with a no-screening strategy. A screening strategy combining the use of deoxyribonucleic acid (DNA) amplification on cervical specimens in women receiving pelvic examinations and DNA amplification of urine in other women prevented the most cases of pelvic inflammatory disease (PID) and provided the most savings. Another study compared three screening strategies—screening according to Centers for Disease Control and Prevention (CDC) criteria (testing all women with mucopurulent cervicitis, all women <20 years of age, as well as testing all women ≥20 years who have not consistently used barrier contraception or have had a new sex partner or >1 sex partner during the past 90 days); screening all women <30 years of age; and universal screening of women. The results suggested that age-based screening provided the greatest cost savings. Similarly, a recent study compared targeted screening of women aged ≤25 years with universal screening and universal empiric antibiotic treatment in female military recruits. Targeted screening by age provided the greatest cost savings. Another recent study compared screening women aged 15 to 19 years using the enzyme immunoassay (EIA) method or DNA hybridization probe with a no-screening strategy. The prevalence of infection in this population was 12.6%, and DNA-probe screening proved to be most cost-effective.

Three additional studies suggest that to ensure cost savings of a screening program, the prevalence of chlamydial infection must be >3% to 7%. A fourth study, however, concluded that a universal screening program of 15- to 40-year-old asymptomatic women in the Netherlands was not cost-effective unless prevalence exceeded 41.8%.

### METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

### DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Guidelines/recommendations from the following groups were reviewed:

- American Medical Association (AMA)
- American Academy of Pediatrics
- Centers for Disease Control (CDC)
- U.S. Preventive Services Task Force
- Canadian Task Force on the Periodic Health Examination

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

- Assessment of risk factors for infection with *Chlamydia trachomatis* should be performed during every routine healthcare contact of sexually active women.
- Sexually active women with risk factors should be screened annually by any well-validated, laboratory-based amplification or antigen method, using

cervical or urine specimens. Risk factors include age ≤25 years, a new male sex partner or two or more partners during the preceding year, inconsistent use of barrier contraception, history of a prior sexually transmitted disease (STD), African-American race, and cervical ectopy. All partners of women with positive tests should be tested for *Chlamydia trachomatis*. Women with mucopurulent discharge, suggestive of cervicitis, should be tested immediately.

- Pregnant women should be screened during their first trimester or at their first prenatal visit. Those with risk factors should be re-screened during their third trimester.
- Recommended research priorities include well-designed, randomized controlled trials studying the long-term effects of screening and treatment of various populations, prevalence studies of asymptomatic males, and cost-effectiveness studies of office-based rapid tests.

### CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- *Chlamydia trachomatis* urogenital infections are highly prevalent among adolescents and young adults. Sequelae of undetected, untreated infections account for substantial healthcare costs. Treatment is effective, simple, and well tolerated. The majority of infected women and many men are asymptomatic; thus, screening is necessary for detection. Recently screening for *Chlamydia trachomatis* was simplified through the development of noninvasive, highly sensitive, amplification screening tests.
- *Chlamydia trachomatis* screening programs can be effective, both in lowering disease prevalence and decreasing the incidence of sequelae.

### POTENTIAL HARMS

- Invasiveness of some screening procedures
- Potential for patient anxiety, embarrassment, and the risk of unnecessary treatment of patients with false-positive results, including potential side effects of drugs.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

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### ADAPTATION

Not applicable: Guideline was not adapted from another source.

### DATE RELEASED

2003 Apr

### GUIDELINE DEVELOPER(S)

American College of Preventive Medicine - Medical Specialty Society

### SOURCE(S) OF FUNDING

American College of Preventive Medicine (ACPM)

### GUIDELINE COMMITTEE

Practice Guidelines Committee

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

*Primary Authors*: Katerina Hollblad-Fadiman, MD, MPH; Samuel M. Goldman, MD, MPH

### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

## GUIDELINE STATUS

This is the current release of the guideline.

## GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the American College of Preventive Medicine Web site.

Print copies: Available from the American College of Preventive Medicine, 1307 New York Ave, N.W., Suite 200, Washington, DC 20005-5603.

## AVAILABILITY OF COMPANION DOCUMENTS

None available

## PATIENT RESOURCES

None available

## NGC STATUS

This NGC summary was completed by ECRI on October 30, 2003. The information was verified by the guideline developer on November 24, 2003.

## COPYRIGHT STATEMENT



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